

What is claimed is:

1. A sensor device for tire which detects tire inside information in a state of the device installed in a tire air chamber and transmits the detected results to the outside, comprising:

a movable member which is swingable outwardly in a tire radial direction by centrifugal force of the tire when the tire is rotating; and

a switch which detects a traveling state in conjunction with movement of the movable member.

2. A sensor device for tire which detects tire inside information in a state of the device installed in a tire air chamber and transmits the detected results to the outside, comprising:

a sensor which detects the tire inside information;

a transmitter which transmits the tire inside information;

a control circuit which controls operations of the sensor and the transmitter;

a battery to be a power source;

a movable member which is swingable outwardly in a tire radial direction by centrifugal force of the tire when the tire is rotating; and

a switch which detects a traveling state in conjunction with movement of the movable member,

wherein the control circuit switches at least one of the operations of the sensor and the transmitter between a traveling mode and a non-traveling mode, based on detected results of the switch.

3. The sensor device for tire according to any one of claims 1 and 2, wherein the movable member forms an antenna for transmission.

4. The sensor device for tire according to any one of claims 1 to 3, wherein the movable member is supported so as to be swingable around a rotating shaft parallel to a tire axial direction, and the switch is disposed in the vicinity of a base of the movable member.
5. The sensor device for tire according to any one of claims 1 to 3, wherein the movable member is supported so as to be swingable around a rotating shaft parallel to a tire axial direction, and the switch is disposed in an intermediate position between the base of the movable member and a tip thereof.
6. The sensor device for tire according to any one of claims 1 to 5, wherein the movable member is energized by an elastic body in a direction opposite to a direction of action of the centrifugal force.
7. The sensor device for tire according to any one of claims 1 to 6, wherein elastic force to the movable member by the elastic body is set to be changeable.
8. The sensor device for tire according to any one of claims 1 to 7, wherein a replaceable weight is attached to the tip of the movable member.
9. The sensor device for tire according to any one of claims 1 to 8, wherein a magnet is attached to the movable member, and the switch is set to be a sealed reed switch which is operated by the magnet.